

Name:

Due Date:

Teacher:

Parent Sign:

Answers

1. Rational (7 is an integer)
2. Rational (-5 is an integer)
3. Rational ($0 = \frac{0}{1}$)
4. Rational ($\frac{3}{4}$ is a fraction)
5. Rational ($-\frac{8}{9}$ is a fraction)
6. Rational ($0.75 = \frac{3}{4}$)
7. Rational ($0.333... = \frac{1}{3}$)
8. Rational ($0.125 = \frac{1}{8}$)
9. Rational (0.142857... is repeating = $\frac{1}{7}$)
10. Rational (same as Q8)
11. Rational ($\sqrt{16} = 4$)
12. Rational ($\sqrt{25} = 5$)
13. Irrational ($\sqrt{2}$ is not expressible as a fraction)
14. Irrational ($\sqrt{3}$ is not expressible as a fraction)
15. Rational ($\sqrt{49} = 7$)
16. Irrational ($\sqrt{50} = 5 \cdot \sqrt{2}$, not a rational number)
17. Irrational ($\sqrt{18} = 3 \cdot \sqrt{2}$, not rational)
18. Rational (cube root(27) = 3)
19. Rational (cube root(8) = 2)
20. Irrational (cube root(2) is not a rational)
21. Irrational (is not a fraction)
22. Irrational (e is not a fraction)
23. Rational ($\frac{5}{10} = \frac{1}{2}$)
24. Rational ($-0.875 = -\frac{7}{8}$)
25. Irrational (that decimal is an approximation of $\sqrt{2}$)
26. Irrational (sum of rational 2 and irrational $\sqrt{3}$ is irrational)
27. Rational ($\sqrt{4}=2$, so $4 - 2 = 2$, rational)
28. Rational ($((\sqrt{3})^2 = 3)$)
29. Rational ($((\sqrt{5})^2 = 5)$)
30. Rational (0.272727... is repeating = $\frac{3}{11}$)
31. Rational ($\frac{1}{3}$ is a fraction)



Math Worksheet for 8th Grade

Irrational numbers

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32. Rational ($\frac{22}{7}$ is a fraction; note $\frac{22}{7}$ but is rational)
33. Rational (0.090909... repeating = $\frac{1}{11}$)
34. Irrational ($-\sqrt{11}$ is irrational)
35. Rational ($\sqrt{121} = 11$)
36. Rational ($\sqrt{0} = 0$)
37. Rational ($0 * \sqrt{2} = 0$)
38. Irrational ($(\frac{1}{2}) * \sqrt{2}$ remains irrational)
39. Rational ($\sqrt{25}=5$, so $3*5 = 15$)
40. Irrational ($3*\sqrt{2}$ is irrational)
41. Irrational choices: B and C
- A $\sqrt{36}=6$ (rational); B $\sqrt{37}$ irrational; C irrational; D $\frac{5}{2}$ rational.
42. Rational choices: B and C and D? Check each:
- A $\sqrt{8}$ is irrational; B $0.625 = \frac{5}{8}$ rational; C $\frac{7}{11}$ rational; D $\sqrt{9}=3$ rational.
- So rational: B, C, D
43. Rational (0 is rational)
44. Irrational (that decimal is an approximation of $\sqrt{2}$)
45. Rational ($\sqrt{81} = 9$)
46. Irrational ($\sqrt{7}$ is not a fraction)
47. Rational ($\frac{123456}{3}$ is a fraction; equals 41152)
48. Rational (0.999... = 1)
49. Rational ($\sqrt{4}=2$ and $\sqrt{9}=3$, so $2+3=5$)
50. Irrational ($\sqrt{2}+\sqrt{2} = 2*\sqrt{2}$, which is irrational)